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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/752,005	01/07/2004	Soo-Young Oh	0465-1784PUS1	3627

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EXAMINER	
STINSON, FRANKIE L	

ART UNIT	PAPER NUMBER
1792	

NOTIFICATION DATE	DELIVERY MODE
05/14/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary	Application No.	Applicant(s)	
	10/752,005	OH ET AL.	
	Examiner	Art Unit	
	FRANKIE L. STINSON	1792	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 January 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,4-8,10-12,15-18 and 20-25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *1 and 2* is/are allowed.

6)☒ Claim(s) *4-8, 10-12, 15-18 and 20-25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *12/17/07 & 11/2/07*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

1. Note: OTOHOSITA is an acronym for: obvious to one having ordinary skill in the art.

2. The indicated allowability of claims 7, 8, 10-13, 15-18 and 20-23 is withdrawn in view of the newly discovered reference(s) as noted below. Rejections based on the newly cited reference(s) follow.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 7, 8, 10, 11 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over either Lorimer (U. S. Pat. No. 5,063,609) or Newman (U. S. Pat. No. 5,290,511) in view of Legeman (U. S. Pat. No. 2,347,490).

Re claims 7 and 18, Lorimer and Newman are each cited disclosing a vapor generator comprising:

a case (11 in Lorimer and 20 in Newman) provided with a space portion for storing water therein, a water supplying portion for supplying water at one side thereof, and a vapor exhaustion portion for exhausting vapor at another side thereof;

a diaphragm (61 in Lorimer and 20b in Newman) formed at an inner upper surface of the case; and

a heater (20a in Lorimer and 43 in Newman) installed in the case for heating water stored in the case that differs from the claim only in the recitation of the water

level detecting means in the case, the mounting bracket and the generator for use in a drum washing machine. In regard to the water level detector, Legeman is cited disclosing in a vapor generator, the arrangement of providing a water level detector (12). It therefore would have been OTOHOSITA, to modify the vapor generator of either Lorimer or Newman, to include a water level detector as taught by Legeman, for the purpose of ensuring the proper amount of water to the generator, thereby preventing any overheating of, or damage to the system. Also note that Newman specifically desires to have the amount of water controlled (via temperature sensor 34b). As for the bracket, Legeman disclose the bracket as claimed, It therefore would have been OTOHOSITA, to modify the system of either Lorimer or Newman, to include a mounting bracket as taught by Legeman, for the purpose of positively securing the case to the system as is common in the art. As for the limitation of a "drum washing machine", the same is of little patentable weight in that the body of the claims fails to recited any structure to limit the generator in a washing machine only,

(A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See In re Hirao, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and Kropa v. Robie, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

Re claim 8, all of the applied prior art disclose the pipe. Re claims 10 and 11, to have the diaphragm formed of slots as claimed is of little patentable weight in the openings in either Lorimer of Newman.

5. Claims 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over the applied prior art as applied to claim 18 above, and further in view of either Youngeberg (U. S. Pat. No. 5,140,667) or Voss et al. (U. S. Pat. No. 6,425,198).

Claim 4 defines over the applied prior art only in the recitation of the case being watertight and having coupling means. Although believed to be inherent in applied prior art, Voss (see fig. 2 and 3) and Youngeberg (as at 42) each positively disclose the watertight case and coupling means as claimed. It therefore would have been OTOHOSITA, to modify the arrangement of either Newman or Lorimer, to have the case watertight and to include coupling means as taught by either Voss or Youngeberg, for the purpose of precluding any leaks that may proved to be injurious. Re claims 5 and 6, Youngeberg disclose the flanges and bolts.

6. Claims 20-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over the applied prior art as applied to claim 18 above, and further in view of either Rasmason (U. S. Pat. No. 5,365,220) or Loniello (U. S. Pat. No. 4,879,902).

Claim 20 defines over the applied prior art only in the recitation of the diaphragm as claimed. Rasmason and Loniello are cited disclosing a diaphragm having longitudinal slots as claimed. It therefore would have been OTOHOSITA, to modify the diaphragm of either Newman or Lorimer, to longitudinal slots as taught by either Loniello or Rasmason, for the purpose of allowing the liquid to the sensor probes in a controlled manner, thereby avoiding any incorrect sensor readings. Re claims 21-23, Loniello disclose the plurality of rods as claimed.

7. Claims 12, 15, 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over either Japan'302 (Japan 2000-266302) or Kang (U. S. Pat. No. 4,948,947) in view either Rasmason (U. S. Pat. No. 5,365,220) or Loniello (U. S. Pat. No. 4,879,902).

Re claims 12 and 15, Japan'302 and Kang are each cited disclosing vapor generator comprising:

a case (70 in Japan'302 and 11 in Kang) provided with a space portion for storing water therein, a water supplying portion for supplying water at one side thereof, and a vapor exhaustion portion for exhausting vapor at another side thereof;

a water level detecting means (20 in Japan'302 and 142, 144 in Kang) installed at the case for detecting a level of water stored in the case, the water level detecting means being a water level detecting senor, the water level detecting sensor including:

a body coupled to an upper portion of the case; and

a plurality of detecting rods longitudinally installed at the body; and

a heater installed in the case for heating water stored in the case; that differs from the claim only in the recitation of the diaphragm installed at the body for covering the plurality of detecting rods, and the device being for use in a washing machine. Rasmason and Loniello are cited disclosing a diaphragm having longitudinal slots as claimed. It therefore would have been OTOHOSITA, to modify the arrangement of either Japan'302 or Kang, to include a diaphragm having longitudinal slots as taught by either Loniello or Rasmason, for the purpose of allowing the liquid to the sensor probes in a

controlled manner, thereby avoiding any incorrect sensor readings. Re claim 16, Japan'302 discloses the first, second and third rod as claimed. Re claim17, in view of typical sensor control mechanism, to have the rods operate as claimed is of little patentable weight in that it is old and well known to program sensors fro various functions and since Japan'303 is clearly capable of functioning as claimed with the proper programming.

APPARATUS CLAIMS MUST BE STRUCTURALLY DISTINGUISHABLE FROM THE PRIOR ART

>While features of an apparatus may be recited either structurally or functionally, claims<directed to >an< apparatus must be distinguished from the prior art in terms of structure rather than function. >In re Schreiber, 128 F.3d 1473, 1477-78, 44 USPQ2d 1429,1431-32 (Fed. Cir. 1997) (The absence of a disclosure in a prior art reference relating to function did not defeat the Board's finding of anticipation of claimed apparatus because the limitations at issue were found to be inherent in the prior art reference); see also In re Swinehart, 439 F.2d 210, 212-13, 169 USPQ 226, 228-29 (CCPA 1971);< In re Danly, 263 F.2d 844, 847, 120 USPQ 528, 531 (CCPA 1959). " [A]pparatus claims cover what a device is, not what a device does." Hewlett-Packard Co. v. Bausch & Lomb Inc., 909 F.2d 1464, 1469, 15 USPQ2d 1525, 1528 (Fed. Cir. 1990) (emphasis in original).

MANNER OF OPERATING THE DEVICE DOES NOT DIFFERENTIATE APPARATUS CLAIM FROM THE PRIOR ART

A claim containing a " recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. Ex parte Masham, 2 USPQ2d 1647 (Bd. Pat. App. & Inter. 1987) (The preamble of claim 1 recited that the apparatus was " for mixing flowing developer material" and the body of the claim recited " means for mixing ..., said mixing means being stationary and completely submerged in the developer material" . The claim was

rejected over a reference which taught all the structural limitations of the claim for the intended use of mixing flowing developer. However, the mixer was only partially submerged in the developer material. The Board held that the amount of submersion is immaterial to the structure of the mixer and thus the claim was properly rejected.).

As for the limitation of a "drum washing machine", the same is of little patentable weight in that the body of the claims fails to recited any structure to limit the generator in a washing machine only,

(A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See In re Hirao, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and Kropa v. Robie, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

8. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Morton (U. S. Pat. No. 4,239,956) in view or either (Zimmermann et al. (U. S. Pat. No. 5,447,597) or Voss et al. (U. S. Pat. No. 6,425,198).

Re claim 24, Morton is cited disclosing a vapor generator comprising:

a case having a space portion to store water therein, a water supplying portion to supply water, and a vapor exhaustion portion to exhaust vapor;

a heater installed in the case to heat water stored in the case; and

a water level detecting sensor installed in the case to detect a level of water stored in the case,

wherein the case includes a lower case where the heater is installed and an upper case coupled to the lower case that differs from the claim only in the recitation of the upper and lower case being coupled by one of a heat bonding and a supersonic bonding.

Zimmermann and Voss are each cited disclosing in a vapor generator a case having a space portion to store water therein, a water supplying portion to supply water, and a vapor exhaustion portion to exhaust vapor, a heater installed in the case to heat water stored in the case, wherein the case includes a lower case where the heater is installed and an upper case coupled to the lower case by one of a heat bonding and a supersonic bonding (col. 4, lines 59 in Zimmermann and col. 5, lines 13-31 in Voss). It therefore would have been OTOHOSITA, to modify the arrangement of Morton, to be as taught by either Voss or Zimmermann, for the purpose of realizing a savings in the cost or materials and it is old and well known to substation one coupling method for another coupling method (see MPEP 2144.06 SUBSTITUTING EQUIVALENTS KNOWN FOR THE SAME PURPOSE). As for the "washing machine", the same is of little patentable weight in that there are no limitations that would limit the device for a washing machine only.

9. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over the applied prior art as applied to claim 24 above, and further in view of either Loniello or Japan'302.

Claim 25 defines over the applied prior art only in the recitation of the three detecting rods. Japan'302 and Loniello disclose the rod as claimed. It therefore would have been

OTOHOSITA, to modify the level sensor of Morton, to be as taught by either Japan'302 or Loniello, since this is considered to be a mere substitution of equivalents.

10. Claims 1 and 2 stand allowed.

11. Applicant's arguments with respect to the pending claims and/or the rejection thereof have been considered. The arguments and/or amendments with respect to the claims have been effective in defining over previous rejection, however, the current remarks stand moot in view of the new ground(s) of rejection.

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. In Wu, Camp, Foster, Weining, and Germany'591 note the steam generators.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to FRANKIE L. STINSON whose telephone number is (571) 272-1308. The examiner can normally be reached on M-F from 5:30 am to 2:00 pm and some Saturdays from approximately 5:30 am to 11:30 am.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr, can be reached on (571) 272-1700. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

fls

/FRANKIE L. STINSON/
Primary Examiner, Art Unit 1792